



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,475	12/14/2001	Geoffrey H. Jenkins	U0131/7009 RJP	5215

23628 7590 08/12/2005

WOLF GREENFIELD & SACKS, PC
FEDERAL RESERVE PLAZA
600 ATLANTIC AVENUE
BOSTON, MA 02210-2211

EXAMINER

CHIN, BRAD Y

ART UNIT PAPER NUMBER

1744

DATE MAILED: 08/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/017,475

Applicant(s)

JENKINS ET AL.

Examiner

Brad Y. Chin

Art Unit

1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 11, 12, 18 and 23-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 11, 18 and 23-28 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/11/05, 7/11/03, 1/21/03, 4/6/02, 3/1/02
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION***Election/Restrictions***

1. Applicant's election of claims 1-5, 11-12, 18, and 23-28 in the reply filed on 27 June 2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-2, 4-5, 11, 18, and 25-28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3, and 6-8 of Eckhardt U.S. Patent No. 6,461,568. Although the conflicting claims are not identical, they are not patentably distinct from each other because Eckhardt teaches the claimed subject matter of the present invention as identified with claims 1-2, 4-5, 11, 18, and 25-28 of the present application.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3. Claim 28 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants fail to provide proper antecedent basis for "the light seal". Applicants do provide reference to a light seal in claim 27, but claim 28 depends from independent claim 26.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-2 and 23-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Matschke [U.S. Patent No. 5,498,394].

Regarding claim 1, Matschke teaches a sterilizer/disinfector for sterilizing or disinfecting an object, comprising: a housing (See Figure 1; germicidal cleansing and drying apparatus formed by upper member 11 and lower member 12, which, together with the diffuser 17 mounted in second chamber 2, define working chamber 10); a light source disposed within the housing (See Figure 1; ultraviolet light source 14; See col. 5, line 59 to col. 6, line 8); a light seal to block light output from the light source from exiting the housing (See Figure 2; portals 26 and 27 with plastic collars 27 and 28; See col. 6, lines 46-54 – plastic collars 27 and 28 act to prevent substantial leakage of ultraviolet light outside working chamber 10), wherein the object forms part of the light seal (See col. 6, lines 46-49 – openings or portals 26 and 27 in the working chamber 10 allow insertion of hands and arms [or medical tools (See col. 3, lines 9-10)]

Art Unit: 1744

into the chamber); and an actuator, triggered by detection of completion of the light seal to a certain degree, to enable light to be output from the light source (See col. 8, lines 27-32—operation of the ultraviolet light 14 is initiated when photoelectric momentary switch 24 indicates there are objects such as hands or arms in the working chamber 10 [extended through portals 26 and 27 and plastic collars 28 and 29], e.g. the hands and arms [or medical tools (See col. 3, lines 9-10)] – the objects to be sterilized).

Regarding claim 2, Matschke teaches the sterilizer/disinfector, wherein the light source emits ultraviolet light (See Figure 1; ultraviolet light source 14; See col. 5, line 59 to col. 6, line 8— industrial rated germicidal bulb with emission in the far ultraviolet wavelength, weighted at 253.7 nm. This wavelength has been found to be particularly useful for destruction of pathogenic microorganisms. Intensity of bulb is selected to produce desired level of ultraviolet radiation in chamber 10).

Regarding claim 23, Matschke teaches a device, comprising: a housing having an opening for at least partially receiving an object (See Figure 1; germicidal cleansing and drying apparatus formed by upper member 11 and lower member 12, which, together with the diffuser 17 mounted in second chamber 2, define working chamber 10 with openings or portals 26 and 27 for receiving hands and arms or medical instrumentation for sterilization or disinfection); at least one movable member, attached to the housing, the at least one movable member movable between an open position and a closed position (plastic collars 28 and 29, attached to the openings or portals 26 and 27, movable between an open position and a closed position, when an object is being placed into the chamber – open – and when the object is partially inserted into the chamber and the plastic collars interface the object - closed); an ultraviolet light source within the housing (See Figure 1; ultraviolet light source 14; See col. 5, line 59 to col. 6, line 8); a detector that detects at least one of: (1) a degree of light sealing of the housing caused at

Art Unit: 1744

least in part by the movable member, (2) the movable member being in the closed position, and (3) an object being located in a certain position at least partially within the housing (See col. 8, lines 27-32 and lines 62-67); and, wherein when the object is placed at least partially within the housing (hands and arms or medical instrumentation inserted into the chamber), the movable member is in the closed position (plastic collars 28 and 29, attached to the openings or portals 26 and 27, movable between an open position and a closed position, when an object is being placed into the chamber – open – and when the object is partially inserted into the chamber and the plastic collars interface the object – closed), and the detector (photo-electric momentary switch 24) detects at least one of: (1) a degree of light sealing of the housing caused at least in part by the movable member, (2) the movable member being in the closed position, and (3) an object being located in a certain position at least partially within the housing (See col. 8, lines 27-32 and lines 62-67).

Regarding claim 24, Matschke teaches the device, wherein the movable member automatically moves to the closed position upon placing an object at least partially within the opening of the housing (See Figure 2; portals 26 and 27 with plastic collars 27 and 28; See col. 6, lines 46-54 – plastic collars 27 and 28 act to prevent substantial leakage of ultraviolet light outside working chamber 10 – upon placing arms and hands or medical instrumentation into the chamber through the plastic collars of the portals, the plastic collars would open and then automatically move to a closed position interfacing with the object, preventing substantial leakage of UV light outside the working chamber).

Regarding claim 25, Matschke teaches a device, comprising: a housing having an opening for at least partially receiving an object (See Figure 1; germicidal cleansing and drying apparatus formed by upper member 11 and lower member 12, which, together with the diffuser 17 mounted in second chamber 2, define working chamber 10 with openings or portals 26 and

Art Unit: 1744

27 for receiving hands and arms or medical instrumentation for sterilization or disinfection); at least one movable member, attached to the housing, the at least one movable member movable between an open position and a closed position (plastic collars 28 and 29, attached to the openings or portals 26 and 27, movable between an open position and a closed position, when an object is being placed into the chamber – open – and when the object is partially inserted into the chamber and the plastic collars interface the object - closed); an ultraviolet light source within the housing (See Figure 1; ultraviolet light source 14; See col. 5, line 59 to col. 6, line 8); and an actuator that prevents the ultraviolet light source from emitting ultraviolet radiation until an object is placed at least partially within the opening of the housing and the movable member is in its closed position (See col. 8, lines 27-32– operation of the ultraviolet light 14 is initiated when photoelectric momentary switch 24 indicates there are objects such as hands and arms or medical instrumentation at least partially within the working chamber 10 [extended through portals 26 and 27 and plastic collars 28 and 29], e.g. the hands and arms [or medical tools (See col. 3, lines 9-10)] – the objects to be sterilized, and the plastic collars would move to a closed position interfacing with the hands and arms or medical instrumentation, preventing substantial leakage of UV light outside the working chamber).

Regarding claim 26, Matschke teaches a sterilizer/disinfector for sterilizing or disinfecting an object, comprising: a housing (See Figure 1; germicidal cleansing and drying apparatus formed by upper member 11 and lower member 12, which, together with the diffuser 17 mounted in second chamber 2, define working chamber 10 with openings or portals 26 and 27 for receiving hands and arms or medical instrumentation for sterilization or disinfection); an ultraviolet light source disposed within the housing (See Figure 1; ultraviolet light source 14; See col. 5, line 59 to col. 6, line 8); and a lockout mechanism to prevent light from being output from the ultraviolet flash light source when the mechanism is in a lockout state (See col. 8, lines 27-

Art Unit: 1744

32– operation of the ultraviolet light 14 is initiated [only] when photoelectric momentary switch 24 indicates there are objects such as hands or arms in the working chamber 10 [extended through portals 26 and 27 and plastic collars 28 and 29], e.g. the hands and arms [or medical tools (See col. 3, lines 9-10)] – the objects to be sterilized; when no object is inserted into the openings or portals 26 and 27 through plastic collars 28 and 29, the photoelectric momentary switch 24 is in a lockout state, e.g. no ultraviolet light is being output from the light source).

Regarding claim 27, Matschke teaches the sterilizer/disinfector, further comprising a light seal to substantially block light output from the light source from exiting the housing (plastic collars 28 and 29, attached to the openings or portals 26 and 27, movable between an open position and a closed position, when an object is being placed into the chamber – open – and when the object is partially inserted into the chamber and the plastic collars interface the object – closed; See col. 6, lines 46-54 – plastic collars 27 and 28 act to prevent substantial leakage of ultraviolet light outside working chamber 10).

Regarding claim 28, Matschke teaches the sterilizer/disinfector, wherein the lockout mechanism is adapted to prevent light from being output from the ultraviolet flash light source unless completion of the light seal to a certain degree has been detected (See col. 8, lines 27-32– operation of the ultraviolet light 14 is initiated [only] when photoelectric momentary switch 24 indicates there are objects such as hands or arms in the working chamber 10 [extended through portals 26 and 27 and plastic collars 28 and 29], e.g. the hands and arms [or medical tools (See col. 3, lines 9-10)] – the objects to be sterilized; when no object is inserted into the openings or portals 26 and 27 through plastic collars 28 and 29).

5. Claims 25 is rejected under 35 U.S.C. 102(b) as being anticipated by Chu [U.S. Patent No. 5,126,572].

Art Unit: 1744

Chu teaches a device, comprising: a housing having an opening for at least partially receiving an object (housing 11); at least one movable member, attached to the housing, the at least one movable member movable between an open position and a closed position (support means 12 comprising mechanical device 26 to hold the toothbrush within housing 11, with a one-way triggering switch 28 to detect the toothbrush pushing into the holder and turning on the UV light – in particular pivoting flap 28/26 provided which acts as both the mechanical device to hold the toothbrush and the one-way triggering device); an ultraviolet light source within the housing (UV light bulb 16); and an actuator that prevents the ultraviolet light source from emitting ultraviolet radiation until an object is placed at least partially within the opening of the housing and the movable member is in its closed position (support means 12 comprising mechanical device 26 to hold the toothbrush within housing 11, with a one-way triggering switch 28 to detect the toothbrush pushing into the holder and turning on the UV light – in particular pivoting flap 28/26 provided which acts as both the mechanical device to hold the toothbrush and the one-way triggering device, where the UV light from UV light bulb 16 is not emitted until the toothbrush is ed at least partially within the opening of the housing 11 and the pivoting flap 28/26 is in its closed position back against the toothbrush, e.g. for holding/supporting the toothbrush in place within the housing 11).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1744

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matschke, as applied above in paragraph 4, and further in view of Campbell et. al. [U.S. Patent Publication No. 2002/0134734].

Regarding claims 3 and 5, Matschke teaches the sterilizer/disinfector as described above in paragraph 4, but fails to teach that the light source has a duration of less than 10 milliseconds. Campbell et. al. teach the use of pulsed ultraviolet light for purifying water from microbes and generates ozone in water, which further enhances the antimicrobial effect of the treatment (See page 1, [0007]). Campbell et. al. further teach that the duration of the pulse broadly ranges from about 0.1 to about 10 milliseconds and preferably in the range from about 0.5 to about 2 milliseconds (See page 2, [0023]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Campbell et. al.

Art Unit: 1744

into the sterilizer/disinfector of Matschke because incorporating a pulsed ultraviolet light into the sterilizer/disinfector of Matschke and operating the light for a duration of less than 10 milliseconds, as taught by Campbell et. al., would have been sufficient for sterilizing or disinfecting an object with Matschke's apparatus.

7. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matschke, as applied above in paragraph 4, and further in view of Clark et. al. [U.S. Patent No. 5,786,598].

Regarding claims 3-5, Matschke teaches the sterilizer/disinfector as described above in paragraph 4, but fails to teach the light source is a flash lamp, the light output is pulsed, and the light output has a duration of less than 10 milliseconds. Clark et. al. teach a flashlamp system that generates high-intensity, short-duration pulses of polychromatic light in a broad spectrum, with wavelengths selected between 120 nm and 2600 nm, e.g. within the ultraviolet radiation spectrum – 260 nm, and deactivates microorganisms within a container by illuminating the container with the pulses of light having been generated (See col. 4, lines 39-51). Clark et. al. further teach that the duration of the pulsed light output is in the range from 0.001 ms to 100 ms (See col. 8, line 13). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the flashlamp system generated pulsed ultraviolet light for a duration of less than 10 milliseconds into the sterilizer/disinfector apparatus of Matschke because such a flashlamp system would function in Matschke to deactivate microorganisms contaminating a persons hands and arms or on medical instrumentation.

8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matschke in view of Clark et. al. and Stevenson [U.S. Patent No. 2,814,081].

Regarding claim 11, Matschke teaches a sterilizer/disinfector, comprising: a housing (See Figure 1; germicidal cleansing and drying apparatus formed by upper member 11 and lower member 12, which, together with the diffuser 17 mounted in second chamber 2, define working chamber 10); a lamp disposed within the housing (See Figure 1; ultraviolet light source 14; See col. 5, line 59 to col. 6, line 8); and portals 26 and 27 in the working chamber 10 to allow insertion of hand and arms into the chamber. The portals 26 and 27 have mounted on them plastic collars 28 and 29 of low reflective material to prevent eye contact with the interior of the working chamber 10 during an ultraviolet cycle and prevent substantial leakage of ultraviolet light out of the working chamber 10 (See col. 6, lines 46-54). Matschke fails to teach the lamp is a flash lamp and one or more vanes pivotally attached to the housing for actuating the flash lamp and blocking light emitted by the flash lamp from exiting the housing. Clark et. al. teach a flashlamp system that generates high-intensity, short-duration pulses of polychromatic light in a broad spectrum, with wavelengths selected between 120 nm and 2600 nm, e.g. within the ultraviolet radiation spectrum – 260 nm, and deactivates microorganisms within a container by illuminating the container with the pulses of light having been generated (See col. 4, lines 39-51). Stevenson teaches a sterilizer/disinfector apparatus for hands comprising two apertures 33 normally closed by a flexible closure 36, comprising one or more vanes pivotally attached to the housing (See Figure 4 – the one or more curved vanes pivot in relation to one another as hands are inserted through the flexible closure 36; See col. 2, lines 60-70 – the flexible closure 36 is preferably made of neoprene or similar material, so that when the hand is thrust through the enclosure 36, the flexible material gives way to permit the hand to pass into the cabinet, but when the hand is withdrawn, the closure automatically re-covers the aperture. Alternative constructions for the closures would include a split flexible sheet or any other construction, which permits the hands to be thrust through the apertures, yet shields the wrists and sleeves).

Air Unit: 1744

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Matschke, Clark et. al., and Stevenson for providing a sterilizer/disinfector with a pulsed ultraviolet lamp disposed within the housing and comprising two portals where one or more vanes are pivotally attached to the housing for actuating the flash lamp and blocking light emitted by the flash lamp from exiting the housing because Matschke teaches the sterilizer/disinfector with a housing that utilizes an ultraviolet light, such as the flashlamp system of Clark et. al., to deactivate microorganisms contaminating arms and hands or medical instrumentation, and portals with plastic collars, such as the flexible closure, which includes one or more vanes pivotally attached to the housing, as taught by Stevenson, and a photo-electric momentary switch for actuating the ultraviolet lamp and blocking light emitted by the flash lamp from exiting the housing.

9. Claims 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matschke in view of Stevenson.

Regarding claim 18, Matschke teaches a sterilizer/disinfector, comprising: a housing (See Figure 1; germicidal cleansing and drying apparatus formed by upper member 11 and lower member 12, which, together with the diffuser 17 mounted in second chamber 2, define working chamber 10); and portals 26 and 27 in the working chamber 10 to allow insertion of hand and arms into the chamber. The portals 26 and 27 have mounted on them plastic collars 28 and 29 of low reflective material to prevent eye contact with the interior of the working chamber 10 during an ultraviolet cycle, prevent substantial leakage of ultraviolet light out of the working chamber 10, and [enclose the hands and arms or medical instrumentation during sterilization or disinfection] (See Figure See col. 6, lines 46-54). Matschke fails to teach two or more vanes pivotally mounted to the housing, wherein the vanes interface to enclose a portion

Art Unit: 1744

of the object during sterilization or disinfection. Stevenson teaches a sterilizer/disinfector apparatus for hands comprising two apertures 33 normally closed by a flexible closure 36, comprising two or more vanes pivotally mounted to the housing, wherein the vanes interface to enclose a portion of the object during sterilization or disinfection (See Figure 4 – the two or more curved vanes pivot in relation to one another as hands are inserted through the flexible closure 36; See col. 2, lines 60-70 – the flexible closure 36 is preferably made of neoprene or similar material, so that when the hand is thrust through the enclosure 36, the flexible material gives way to permit the hand to pass into the cabinet, but when the hand is withdrawn, the closure automatically re-covers the aperture. Alternative constructions for the closures would include a split flexible sheet or any other construction, which permits the hands to be thrust through the apertures, yet shields the wrists and sleeves). It would have been obvious to one of ordinary skill in the art at the time the invention was made combine the teachings of Matschke and Stevenson because Matschke teaches a sterilizer/disinfector that incorporates portals and plastic collars for interfacing a portion of an object, e.g. hands and arms or medical instrumentation, that is inserted into the housing for sterilization or disinfection, where the two or more vanes pivotally mounted to the housing, as taught by Stevenson, and incorporated into Matschke would function to provide another structure for allowing objects, e.g. hands and arms or medical instrumentation, to be inserted into the portals of Matschke's housing, while interfacing to enclose a portion of the object during sterilization or disinfection, for actuating the ultraviolet lamp and for blocking light emitted by the flash lamp from exiting the housing.

10. Claims 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whitehead [U.S. Patent No. 5,920,075] in view of Clark et. al. [U.S. Patent No. 5,786,598].

Regarding claim 26, Whitehead teaches a sterilizer/disinfector for sterilizing or disinfecting an object, comprising: a housing (See Figure 2; housing 10); an ultraviolet light source disposed within the housing (See Figure 2; ultraviolet light source 30); and a lockout mechanism to prevent light from being output from the ultraviolet flash light source when the mechanism is in a lockout state (See Figure 2; electronic safety mechanism 50 includes a switch lock 60 actuated by a key 65). Whitehead fails to teach that the ultraviolet light source is a ultraviolet flash light source. Clark et. al. teach the use of a flashlamp 40 for generating pulses of ultraviolet light, where the generated light is in a spectrum having wavelengths selected to deactivate microorganisms. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the flash ultraviolet light source, as taught by Clark et. al., into the apparatus of Whitehead because the ultraviolet light source of Clark et. al. functions equivalently to deactivate or sterilize microorganisms, such as germs, bacteria, viruses, and other pathogens, by exposing surfaces and objects to the high-intensity ultraviolet radiation, as taught by Whitehead (See col. 2, lines 30-34).

Regarding claim 27, Whitehead teaches the sterilizer/disinfector, further comprising a light seal to substantially block light output from the light source from exiting the housing (See Figure 4; device 5 with housing 10 comprising a retractable hood 120 that is a pair of doors that open to reveal and conceal, e.g. substantially block light output from the light source from exiting the housing, actuated by key lock 130).

Allowable Subject Matter

11. Claim 12 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Claim 12 includes the limitation for a sterilizer/disinfector further comprising a hinged door at each of an entry point and an exit point of the housing. Matschke [U.S. Patent No. 5,498,394] teach a sterilizer/disinfector comprising a housing with an ultraviolet lamp with portals comprising plastic collars and a photo-electric momentary switch for actuating the ultraviolet lamp and for blocking light emitted by the flash lamp exiting the housing, but fail to teach the sterilizer/disinfector further comprising a hinged door at each of an entry point and exit point of the housing. Clark et. al. [U.S. Patent No. 5,786,598] teach a sterilizer/disinfector comprising a housing with a flashlamp system, but fail to teach the sterilizer/disinfector further comprising a hinged door at each of an entry point and exit point of the housing. Stevenson [U.S. Patent No. 2,814,081] teaches a sterilizer/disinfector comprising a housing with one ore more vanes pivotally attached to the housing, but fails to teach the sterilizer/disinfector further comprising a hinged door at each of an entry point and exit point of the housing. Chu [U.S. Patent No. 5,126,572] teaches a sterilizer/disinfector comprising a housing with an ultraviolet lamp and a hinged door at an entry point and an exit point of the housing, where the hinged door actuates the activation of the UV light (See Figure 2; See col. 2, lines 27-31), but fail to teach one or more vanes pivotally attached to the housing for blocking light emitted by the lamp from exiting the housing. None of the references teach the claimed limitations nor would it have been obvious to combine references to achieve the claimed inventive subject matter.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brad Y. Chin whose telephone number is 571-272-2071. The examiner can normally be reached on Monday – Friday, 8:00 A.M. – 5:00 P.M.

Art Unit: 1744

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sun (John) Kim, can be reached at 571-272-1142. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

byc
August 3, 2005


JOHN KIM
SUPERVISORY PATENT EXAMINER